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Theodore-Weber, CH-1208 Geneva (CH). **VAN DELDEN, Christian** [CH/CH]; 24, chemin David-Munier, CH-1223 Cologny (CH).

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(74) Agent: **E. BLUM & CO.**; Vorderberg 11, CH-8044 Zürich (CH).

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(71) Applicant (*for all designated States except US*): **UNIVERSITY OF GENEVA** [CH/CH]; 15, rue Lombard, CH-1205 Geneva (CH).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **COSSON, Pierre** [FR/CH]; 55, chemin Poluzzi, CH-1227 Carouge (CH). **KÖHLER, Thilo** [CH/CH]; 15, rue de la Tambourine, CH-1227 Carouge (CH). **BENGHEZAL, Mohammed** [CH/CH]; 8A, chemin des Fins, CH-1218 Grand-Saconnex (CH). **MARCHETTI, Anna** [CH/CH]; 36, avenue

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(54) Title: **VIRULENCE GENES, PROTEINS, AND THEIR USE**

(57) **Abstract:** A series of genes from *Pseudomonas aeruginosa* and *Klebsiella* are shown to encode products that are implicated in virulence. The identification of these genes therefore allows attenuated microorganisms to be produced. Furthermore, the genes or their encoded products can be used to identify antimicrobial drugs, diagnostic methods for the identification of a pathogen-associated disease, and in the manufacture of vaccines.



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